

What is claimed is:

1. A method for characterizing a vehicle's emissions comprising the steps of:

generating a data set from the vehicle that comprises the following: diagnostic trouble codes, status of a MIL, and data relating to at least one I/M readiness flag;

transferring the data set to a wireless appliance comprising:

i) a microprocessor, and
ii) a wireless transmitter in electrical contact with the microprocessor;

transmitting a data packet comprising the data set or a version thereof with the wireless transmitter over an airlink to a host computer system;

analyzing the data packet with the host computer system to determine a status of the vehicle's emissions;

repeating the generating, transferring, transmitting, and analyzing steps while the vehicle is in use to determine an updated status of the vehicle's emissions; and sending a communication describing the vehicle's emissions status.

2. The method of claim 1, wherein the repeating step further comprises repeating the generating, transferring, transmitting, and analyzing steps to determine when the vehicle's emissions are no longer compliant with a pre-determined emissions-related criteria.

3. The method of claim 2, wherein the sending step further comprises sending out a communication indicating that the vehicle's emissions are no longer compliant with the pre-determined emissions-related criteria.

4. The method of claim 1, wherein the repeating step further comprises repeating the generating, transferring, transmitting, and analyzing steps to determine that the vehicle's emissions are compliant with a pre-determined emissions-related criteria.

5. The method of claim 1, wherein the repeating step further comprises repeating the generating, transferring, transmitting, and analyzing steps to monitor data relating to at least one I/M readiness flag.

6. The method of claim 5, wherein the sending step further comprises sending out a communication indicating a status of at least one I/M readiness flag.

7. The method of claim 5, wherein the step of repeating the generating, transferring, transmitting, and analyzing steps to monitor data relating to at least one I/M readiness flag is stopped when all readiness flags are registered as 'complete' or an equivalent thereof.

8. The method of claim 5, wherein the sending step further comprises sending out a communication indicating a description of at least DTC.

9. The method of claim 1, wherein the sending step further comprises using a computer to send out an email or make a phone call.

10. The method of claim 9, wherein the computer is comprised by the host computer system.

11. The method of claim 1, further comprising the step of processing the data packet with the host computer system to retrieve the data set or a version thereof.

12. The method of claim 11, wherein the data set or portions thereof are stored in a database comprised by the host computer system.

13. The method of claim 1, wherein the analysis step further includes the following steps:

- a) determining if one or more DTCs are present in the data set;
- b) determining a status of the MIL in the data set; and
- c), determining a status of the I/M readiness tests in the data set.

14. The method of claim 13, wherein the analysis step further includes the step of determining if a user 'passes' or 'does not pass' an emissions test.

15. The method of claim 14, wherein the data relating to the at least one I/M readiness flag describes the status of the flag.

16. The method of claim 15, wherein the generating step further includes generating a status of at least one

of the following I/M readiness tests: i) misfire monitoring; ii) fuel systems monitoring; iii) comprehensive component monitoring; iv) catalyst monitoring; v) evaporative system monitoring; vi) oxygen sensor monitoring; vii) oxygen sensor heater monitoring; viii) exhaust gas recirculator system monitoring.

17. The method of claim 16, wherein the generating step further includes generating a status of each of tests i) - viii) that are supported by the vehicle.

18. The method of claim 17, wherein the analysis step further includes determining if the I/M readiness flags are characterized by at least one of the following: 'complete', 'incomplete', 'not available', 'not supported' or equivalents thereof.

19. The method of claim 18, wherein the vehicle is determined to not 'pass' an emissions test if more than 2 of the I/M readiness flags are 'incomplete'.

20. The method of claim 13, wherein the vehicle is determined to not 'pass' an emissions test if at least one DTC is present in the data.

21. The method of claim 13, wherein the analysis step determines that a user does not 'pass' an emissions test if the MIL status is 'on' or an equivalent thereof.

22. The method of claim 13, wherein the vehicle is determined to 'pass' an emissions test if no DTCs are present in the data.

23. The method of claim 22, wherein the analysis step determines that a user 'passes' an emissions test if the MIL status is 'off' or an equivalent thereof and all supported I/M readiness flags are complete or an equivalent thereof.

24. The method of claim 13, wherein the analysis step determines that a user does not 'pass' an emissions test if the MIL status is 'off' or an equivalent thereof and all supported I/M readiness flags are not complete or an equivalent thereof.

25. The method of claim 13, wherein the analysis step determines that a user 'passes' an emissions test if the

MIL status is 'off' or an equivalent thereof and no more than two of the supported I/M readiness flags are 'incomplete' or an equivalent thereof.

26. The method of claim 25, wherein the analysis step determines that a user 'passes' an emissions test if the MIL status is 'off', or an equivalent thereof, the vehicle has no DTCs, and all supported I/M readiness flags are 'complete' or an equivalent thereof.

27. The method of claim 1, wherein results of the analysis step are stored in a database.

28. The method of claim 1, wherein results of the analysis step are emailed.

29. The method of claim 1, further including the step of displaying the data set on a web site.

30. The method of claim 1, further including the step of displaying results of the emissions test on the web site.

31. The method of claim 29, wherein the web site is hosted by a host computer system.

32. The method of claim 30, further including the step of emailing the results of the emissions test.

33. The method of claim 1, wherein the generating step further includes the step of monitoring an engine computer in the vehicle to generate the data set that includes at least one of the following: diagnostic trouble codes, status of a MIL, and data relating to I/M readiness flags.

34. The method of claim 33, wherein the engine computer is monitored with a period of 24 hours or less.

35. The method of claim 33, wherein the monitoring ceases when the data relating to the I/M readiness flags indicates that no more than two flags supported in the vehicle are 'incomplete' or an equivalent thereof.

36. The method of claim 35, wherein the monitoring ceases when the data relating to the I/M readiness flags

indicates that each flag supported in the vehicle is 'complete' or an equivalent thereof.

37. The method of claim 1, wherein the transferring step further includes serially transferring the data set through an OBD-II connector or equivalent thereof in the vehicle to the wireless appliance.

38. The method of claim 1, further comprising sending an electronic text, data, or voice message to a computer, cellular telephone, or wireless device.

39. The method of claim 38, wherein the electronic text, data, or voice message describes a status of the vehicle's emissions.

40. A method for characterizing a vehicle's emissions comprising the steps of:

generating a data set from the vehicle that includes the following: diagnostic trouble codes, status of a MIL, and data relating to at least one I/M readiness flag;

transferring the data set to a wireless appliance comprising:

- i) a microprocessor, and

ii) a wireless transmitter in electrical contact with the microprocessor;
transmitting a data packet comprising the data set or a version thereof with the wireless transmitter over an airlink to a host computer system;
analyzing the data packet with the host computer system to determine a status of the vehicle's emissions;
repeating the generating, transferring, transmitting, and analyzing steps while the vehicle is in use to determine an updated status of the vehicle's emissions; and
displaying contents of the data set of a version thereof on a web site hosted by the host computer system.

41. A system for characterizing a vehicle's emissions, the system comprising:

a wireless appliance that includes an electronic system that retrieves a data set from the vehicle, the data set including at least the following: diagnostic trouble codes, status of a MIL, and data relating to I/M readiness flags, the wireless appliance configured to continually retrieve the data set until it receives instructions to stop retrieving; and

a wireless transmitter in electrical contact with the electronic system that is configured to transmit a data

packet comprising the data set or a version thereof over an airlink to a wireless communications system.

42. A method for characterizing a vehicle's emissions comprising the steps of:

generating a data set from the vehicle that includes the following: diagnostic trouble codes, status of a MIL, and data relating to I/M readiness flags;

transferring the data set to a wireless appliance comprising:

i) a microprocessor, and
ii) a wireless transmitter in electrical contact with the microprocessor;

transmitting a data packet comprising the data set or a version thereof with the wireless transmitter over an airlink to a wireless communications system and then to a host computer system;

analyzing the data set with the host computer system;

repeating the generating, transferring, transmitting, and analyzing steps while the vehicle is in use to determine an updated status of the vehicle's emissions; and

notifying a user associated with the vehicle of the vehicle's emissions performance.

43. The method of claim 42, wherein the analysis step further includes the steps of determining if the vehicle is in compliance with a predetermined standard relating to emissions.

44. The method of claim 42, wherein the notifying step further includes sending an email to the user.

45. The method of claim 42, wherein the email comprises the results of the analyses step.

46. The method of claim 42, wherein the notifying step further includes the step of notifying the user that the vehicle does not pass an emissions test.